

**REMARKS**

This amendment is responsive to the Non-Final Rejection of October 30, 2007. Claims 17, 24, 29, 34, and 35 have been amended herein. Reconsideration and allowance of all claims are requested.

**The Office Action**

Claims 3, 5, 7-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Arellano et al. (US 2004/0128624 A1) in view of Thuraisingham (US 5,481,700).

Claims 2 and 6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Arrelano and Thuraisingham as applied to claim 5 above, and further in view of Maissel et al. (US 6,637,029 B1).

Claims 10-13, 34-38, 41, 42, and 44 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Arellano et al. (US 2004/0128624 A1) and Akella et al. (US 2002/0178146 A1) in view of Thuraisingham.

Claims 17, 20, 24, 25, 29-30, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arellano et al. (US 2004/0128624 A1) in view of Thuraisingham.

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arellano et al. (US 2004/0128624 A1), Thuraisingham as applied to claim 17 above and further in view of Sezan et al. (US 2005/0091686 A1).

**The Claims Distinguish Patentably Over the References of Record**

**Claim 5** sets forth a data processing system which includes a demultiplexer, an analyzer, a storing computer routine for storing facts, etc., in an adaptive memory, and a reasoning and fact reconciling computer routine. The reasoning and fact reconciling computer routine uses modal logic to control the adaptive memory. Arellano fails to disclose a data processing system with this organization. Thuraisingham fails to overcome the deficiencies of Arellano with regard the claimed features.

The Examiner contends that Arellano teaches a demultiplexer, citing the “filter” described at paragraphs [0173]–[0176], to separate the various data components received via the network. However, the cited paragraphs do not describe a demultiplexer as set forth in claim 5. Rather, the filter of Arellano merely searches keywords and returns filtered results. For instance, “A filter is a construct that takes in a set of content elements and returns a subset of the original inputs. A filter has specific filtering semantics e.g., a feature-based filter that uses a filter (e.g., keyword=television) to comb through an input set of content elements to retrieve content elements that match the feature.” (See, e.g., Arellano, paragraph [0175].) The keyword filter of Arellano is thus not a demultiplexer that demultiplexes a signal into data components as set forth in independent claim 5. Accordingly, it is submitted that **claim 5 and claims 2-3, and 6-9 dependent therefrom** distinguish patentably and unobviously over the references of record.

**Claim 10** sets forth that the snapshots being analyzed contain information related to user behavior and/or interests. Claim 10 calls for updating an adaptive personal memory based on the analysis of content and *behaviors of a relevant user*. Further, claim 10 calls for the processor to periodically generate snapshots of user viewed content and behavior, each snapshot representing a preceding period since the generation of a prior snapshot. Further, claim 10 calls for analyzing a series of the snapshots to determine *user behavior* trends and patterns in content experienced by *the user*. Arellano neither discloses such an organization nor the use of snapshots as currently claimed.

The Examiner admits that Arellano fails to disclose analyzing snapshots indicative of user interest for adaptive memory tracking and evolution of the user, and relies on Akella to teach such aspects. The Examiner has indicated that Akella is relied upon to teach analyzing snapshots. However, the element that the Examiner argues is taught by Akella sets forth “analyzing the snapshots for adaptive memory tracking and evolution of the user.” The adaptive memory is updated using updated content and behavior data, which is generated from analyzed content and behaviors, all of which elements are set forth in claim 10. The claimed analyzed snapshots are indicative of user interests, as is also set forth in claim 10. Akella fails to overcome the deficiencies of Arellano with regard to analyzing snapshots of indicative of user

interests. Rather, Akella describes a system wherein a user views snapshots of data related to other entities (i.e., not related to the user or the user's interests). For instance, "A user can scroll through views of historical data pertaining to a customer or other entity included in the database." (See, e.g., paragraph [0009].) Akella is silent with regard to the aspect of analyzing snapshots indicative of user interest of behavior. Moreover, Thuraisingham fails to disclose this aspect of claim 10. Accordingly, it is submitted that **claim 10 and claims 11-13 dependent therefrom** distinguish patentably and unobviously over the references of record.

**Claim 17** has been amended to set forth that the analyzed user behavior includes a record of play sequence commands, and furthermore calls for an adaptive memory and a processor which maintains the adaptive memory. Further, the code implemented by the processor analyzes the experienced content, the user behavior, and responses to at least one query to create updated data and updates the adaptive memory with the updated data. The updating and analyzing are to be done using modal, non-monotonic logic. The cited references do not teach or suggest analyzing play sequence commands.

The present application acknowledges that non-monotonic logic and modal operators are known mathematical techniques. However, the present application finds them particularly advantageous techniques relative to other logic techniques. Thuraisingham provides a list of logic or reasoning processes, presented as being equivalent to each other. There is no suggestion in Thuraisingham or Arellano that non-monotonic reasoning is superior. Neither Thuraisingham nor Arellano provide any motivation for picking non-monotonic reasoning out of the list. Accordingly, it is submitted that **claim 17 and claims 18-20 dependent therefrom** distinguish patentably and unobviously over the references of record.

**Claim 29** has been amended herein to set forth that the facts derived from the relevant user's behavior include a record of play sequence commands, which aspect was previously set forth in claim 24. The Examiner asserts that this feature is taught by Maissel, which mentions channel surfing as a type of user behavior. Play sequences are defined in the subject application as, for example, "fast forward, pause, replay, jump, select, and rewind." Thus, the play sequence commands recited in claim 29 (and various dependent claims) related to play sequences within a single

program or data component. The channel surfing described in Maissel therefore does not teach or suggest the claimed aspect of a record of play sequences.

Moreover, claim 29 calls for performing at least one of maintaining, analyzing, and updating steps using non-monotonic logic, wherein the non-monotonic logic is modal logic. The Examiner has admitted that Arellano does not teach the aspect of using modal non-monotonic logic. Thuraisingham, cited by the Examiner, provides a list of various applicable logic techniques, all presented as equivalents. There is no suggestion in Thuraisingham that one of these techniques, particularly non-monotonic modal logic, would be superior. Further, none of the cited references provides any motivation or reason to suspect that the combination of modal non-monotonic logic in the data processing method of claim 29 would be superior or advantageous to other methods. Accordingly, it is submitted that **claim 29 and claims 24-25, 30, and 33 dependent therefrom** distinguish patentably and unobviously over the references of record.

**Claim 34** has been amended herein to set forth that the facts derived from the relevant user's behavior include a record of play sequence commands, which aspect was previously set forth in claim 35. The Examiner asserts that this feature is taught by Maissel, which mentions channel surfing as a type of user behavior. Play sequences are defined in the subject application as, for example, "fast forward, pause, replay, jump, select, and rewind." Thus, the play sequence commands recited in claim 29 (and various dependent claims) related to play sequences within a single program or data component. The channel surfing described in Maissel therefore does not teach or suggest the claimed aspect of a record of play sequences.

Claim 34 also calls for a code for analyzing a plurality of snapshots to develop patterns, trends, and tendencies in a relevant user's behavior using modal non-monotonic logic. The only reference to a snapshot in Arellano appears in paragraph [0018]. However, Arellano does not suggest periodically generating snapshots and then analyzing a plurality of the snapshots to develop patterns, trends, and tendencies in the relevant user's behavior. The Examiner asserts that Arellano teaches this aspect in paragraph [0090] which mentions a tendency of a user. However, nothing in the Examiner's cited sections suggests that such tendency is determined through snapshot analysis.

As stated above with regard to claim 10, Akella fails to overcome the deficiencies of Arellano with regard to analyzing snapshots of indicative of *user* interests. Rather, Akella describes a system wherein a user views snapshots of data related to other entities (i.e., not related to the user or the user's interests). Akella is silent with regard to the aspect of analyzing snapshots indicative of user interest of behavior. Accordingly, it is submitted that **claim 34 and claims 35-38 and 41-44 dependent therefrom** distinguish patentably and unobviously over the references of record.

#### **Reconsideration of the 37 CFR 1.131 Declaration**

The applicants appreciate the Examiner's reconsideration of his holding that 7 months between preparation of a disclosure document and filing a patent application, and reserve the right to appeal the holding. As stated in the previous Amendment, it is well established that those involved in the patent obtaining process need not drop everything and put a disclosure at issue at the head of the line. To do so would move other inventions back.

As set forth in the Declaration, the submitted disclosure was collected with other disclosures to decide which to patent. Such a decision process requires a reasonable period of time to collect other disclosures and schedule a meeting.

As set forth in the Declaration, this invention was next sent for a search. Again, the searchers search the new disclosures in order. Typical search turn around times in the experience of the undersigned are 2½ - 4 months.

The inventors and attorney or agent need to be accorded a reasonable duration to review the search and evaluate the results.

The attorney or agent charged with drafting the application has a docket of applications to draft. Diligence does not require moving every application to the head of the line.

Often, the drafting attorney or agent schedules a meeting or teleconference with the inventors. Coordinating schedules is done promptly, but cannot be done instantly.

Once drafting an application starts, one can expect an application of this size to require 30-45 working hours depending on the experience of the drafter. This

includes drafting and redrafting with secretarial time between drafts. The secretary again has a docket of work. Sometimes, it becomes necessary to contact the inventor for clarification.

Once drafted, the application is reviewed by the inventors. Again, the inventor must review the application promptly but is not required to drop everything. Because reviewing an application can take a significant period of time, scheduling such a significant period of time, e.g. a day, is not done instantly, particularly when plural inventors need to coordinate their reviews and proposed modifications.

Once the inventors have their proposed modifications, they are communicated to the drafting attorney or agent, possibly in a meeting.

Once redrafted, the inventors again review the application and either approve it or send another round of modifications.

Then submission papers are prepared and the application is filed. In 2001, filing was often done by mail.

It is submitted that when one understands the complex process of preparing a well drafted application with a professional search, seven months does not evidence a lack of diligence. Rather, when one considers the number of people involved and the number of times they must interface, 7 months is prompt and evidences diligence.

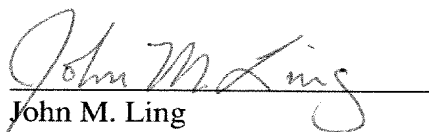
Also, the Examiner is requested to consider how long an application sets in a diligent Examiner's new application and amendment dockets.

**CONCLUSION**

For the reasons set forth above, it is submitted that all claims now comply with the statutory requirements and distinguish patentably and unobviously over the references of record. An early allowance of all claims is requested.

Respectfully submitted,

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A handwritten signature in cursive script, reading "John M. Ling", is written over a horizontal line.

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